

February 14, 1961

Dr. P. O'B. Montgomery
Department of Pathology
The University of Texas
Southwestern Medical School
5323 Harry Hines Boulevard
Dallas 35, Texas

Dear Doctor Montgomery:

A few days ago I had a very interesting discussion with some people from Philco in which some details of the UV-emitting CRO tube came out. This is plainly a very interesting source for many purposes.

During the past few months, we have been spending some time in looking for suitable filters that might be used in connection with UV microscopy. From our own experience, I suspect that you are rather exasperated with what is currently available by way of interference filters. However, Mrs. Jane Sanders here has been able to effect some improvements in the iodine filter originally described by Hoshino and Yoshida and I wonder if you would not find these advantageous for removing the undesirable long wave length components in the output of the Philco tube. Possibly you are already well acquainted with this type of filter but on the chance that this is not the case, I am taking the liberty of sending one along together with the corresponding transmission spectra. The filter, as we are using it in connection with low pressure mercury sources for the isolation of the 2537 Å line, consists of two parts: A) a methacryl film cast on a quartz plate and containing the material cation X₂. This is used here primarily to obliterate the window at around 330 Å. B) is an iodine-methacryl film also on quartz which gives a useful cut-off at about 370 mμ. The two filters have been placed face to face and taped together; C is the transmission curve of the composite as we would use it.

These filters would be of material assistance to you, we will be happy to send you more details on their preparation. On the other hand, if you are already well acquainted with them or if they do you no particular good then just toss them out.

I would be interested to know if your findings on the L-2116 tube agree in practice with the specifications given by the company or whether there are departures from it, particularly with age during the useful life of the tube. In addition, I wonder if you would be able to advise whether it is wiser to purchase such a tube without warranty at \$750 or with warranty for an additional \$250.

Yours sincerely,

Joshua Lederberg
Professor of Genetics.

*see ltr 3
appendices.*